



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/242,191	05/17/1999	MICHEL RIERA	144-198	9738

23973 7590 09/09/2003  
**DRINKER BIDDLE & REATH**  
ONE LOGAN SQUARE  
18TH AND CHERRY STREETS  
PHILADELPHIA, PA 19103-6996

25

EXAMINER

TRAN, THAO T

ART UNIT PAPER NUMBER

1711

DATE MAILED: 09/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/242,191

Applicant(s)

RIERA, MICHEL

Examiner

Thao T. Tran

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 19-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 19, 2003 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 19-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima et al. (US Pat. 6,489,872).

In regards to claims 19 and 32, Fukushima teaches a method for generating a magnetic field; comprising the use of permanent magnets for generating a first magnetic field, and antenna coils, orthogonal to the permanent magnets, for generating a second magnetic field; wherein the magnitude (intensity) and direction of the resultant magnetic field is varied over time. Fukushima further teaches an oscillating electric current is applied to the coils to generate the second magnetic field and another set of coils, an assembly of magnetic materials, an assembly of iron or other ferromagnetic materials or combination thereof for generating gradient magnetic fields

Art Unit: 1711

(see Figs. 2D-2E, 4; col. 7, ln. 49 to col. 8, ln. 59; col. 15, ln. 31 to col. 16, ln. 44; col. 17, ln. 33-31; claims 1-27). The reference further teaches at least one magnetic field component is whether oscillating or rotating; the first and second magnetic fields component vary with time; and that the first magnetic field comprises a field distribution substantially different than that of the second field (see col. 9, ln. 67 to col. 10, ln. 27).

Although the reference does not the resultant of the first and second magnetic fields is a magnetic field moving in the field plane giving an amplitude which is variable over time and a direction moving at a variable angular velocity, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that varying the amplitude of a magnetic over time would have been determined by optimization through routine experimentation, depending upon user's preference and intended use, in order to bring forth maximal benefits attendant therewith. See In re Boesch, 205 USPQ 215 (CCPA 1980); In re Antonie, 195 USPQ 6 (CCPA 1977); In re Aller, 105 USPQ 233, 235 (CCPA 1955).

In regards to claims 25, 27, and 37, although Fukushima does not teach a specific angle between the direction of the fluid flow and the magnetic field, specific angle would have been an obvious design choice, determined by optimization through routine experimentation, depending upon operating conditions, and user's preference and intended use. See In re Boesch, 205 USPQ 215 (CCPA 1980); In re Antonie, 195 USPQ 6 (CCPA 1977); In re Aller, 105 USPQ 233, 235 (CCPA 1955).

In regards to claim 28, although Fukushima does not specifically teach a plurality of parallel magnetic field planes, it has been held that duplication of parts has no significant

Art Unit: 1711

patentable weight, absence of evidence to the contrary. See In re Harza, 124 USPQ 378 (CCPA 1960).

In regards to claim 29, although Fukushima does not specifically teach the ferromagnetic core to be U-shaped or E-shaped, it would have been obvious to one ordinary skill in the art that configurations of the core would have been an obvious design choice, depending upon operating conditions, and user's preference and intended use. See In re Boesch, 205 USPQ 215 (CCPA 1980); In re Antonie, 195 USPQ 6 (CCPA 1977); In re Aller, 105 USPQ 233, 235 (CCPA 1955).

In regards to claim 30-31, it has been held that the material being worked upon would have little patentable weight in a process claim.

#### ***Contact Information***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 703-306-5698. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



tt

September 8, 2003



James J. Seidleck  
Supervisory Patent Examiner  
Technology Center 1700